

Serial No. 10/668,387
Page 5

REMARKS

1. **Rejection of claims 1-14 and 18 under 35 USC § 103(a) as being unpatentable over USP 6,306,253 ("LINDAHL et al") in view of USP 4,410,397 ("KEMPF")**

Claims 1-14 and 18 are rejected under 35 U.S.C. § 103 (a) as being unpatentable over LINDAHL et al in view of KEMPF. This rejection is respectfully traversed.

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation in the references to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. Indeed, both the suggestion and the expectation of success must be found in the prior art, not in the Applicant's disclosure. In re Vaeck, 20 USPQ2d 1438 (Fed. Cir. 1988) (emphasis added). The Applicant believes that the Examiner has failed to make a *prima facie* case of obviousness.

One aspect of this invention relates to a process for modulating the morphology of cellulosic fibers by subjecting the fibers to a metal ion-activated peroxide treatment at a pH of from 1 to 9 and subjecting the treated fibers to a refining treatment. Another aspect of this invention relates pulps having a modified morphology. This invention is not taught or suggested by the cited references either individually or in combination.

LINDAHL et al describes a process for the treatment of chips to remove metal from the chips prior to subsequent treatments such as digestion of the chips treated in the process and bleaching of the pulp formed by digestion. The deficiencies of LINDAHL et al are apparent. First, the claimed process is directed to the treatment of cellulosic fibers and not wood chips as is

Serial No. 10/668,387

Page 6

the case of LINDAHL et al. Second, in the claimed invention, the cellulosic fibers are treated with peroxide in the PRESENCE of metal ions. The teachings of LINDAHL et al are diametrically opposed to the present invention in that this reference teaches that metal should be removed prior to any subsequent treatments such as digestion and bleaching which means that these subsequent pulp treatments must necessarily be carried out in the ABSENCE of metals. Therefore, LINDAHL et al teaches away from what applicant has done and is in fact "demotivating". LINDAHL et al clearly does not provide the necessary motivation to modify the teachings of that reference to form the claimed invention with any reasonable expectation of success as is required to support a rejection of claims for prima facie obviousness.

The deficiencies of LINDAHL et al are not obviated by KEMPF, the secondary reference. KEMPF is directed to a delignification and bleaching process. This reference is relied by the Examiner as teaching adding metal additives during peroxide bleaching at a pH of 1-7 to retard viscosity loss and degradation. Based on this teaching it is Examiner's opinion that it would have been obvious to add metal additive of KEMPF to retard viscosity loss and degradation due to peroxide oxidation during the bleaching of LINDAHL et al. Applicant does not agree with this assessment. LINDAHL et al. specifically teach the removal of metal from the chips so that no metals are present during bleaching and based on Examiner's reading KEMPF teaches the addition of metal to peroxide bleaching. The teachings of these references are dramatically opposed to each other in that teach the exact opposite.

It is well settled law that references can be combined to frame a Section 103 rejection, but they cannot be combined indiscriminately. In re Mercier, 515 F2d 1161, 184 USPQ

Serial No. 10/668,387
Page 7

(C.C.P.A. 1982). As the Court stated in re Sterniski, 444 F2d 581, 170 USPQ 343 (C.C.P.A. 1971):

"there must be some logical reason apparent from positive, concrete evidence of record which justifies a combination of primary and secondary references and subsequent conclusion of obviousness."

No such "logical reason" has been presented nor is any set forth in the references themselves. There is no teaching or suggestion in any cited reference that would motivate one of ordinary skill in the art to pick and choose bits and pieces from KEMPF and LINDAHL et al and combine same to hypothetically create the claimed invention. In fact the prior art is "demotivating" and teaches away from such a combination of the teachings of KEMPF and LINDAHL et al in that LINDAHL et al expressly teaches away from modifying the process of that reference as suggested by Examiner.

This rejection is inappropriate and should be withdrawn.

5. Rejection of claims under 35 USC § 103 as being unpatentable over LINDAHL et al in view of KEMPF, with or without USP 6,436,238 (" PITKANEN et al.")

Claims 15-18 are rejected under 35 U.S.C. § 103 (a) as being unpatentable over LINDAHL et al in view of KEMPF with or without PITKANNEN. This rejection is respectfully traversed.

The deficiencies of LINDAHL et al. and KEMPF have been clearly discussed above. PITKANNEN does not cure any of these deficiencies. Examiner relies on this reference as teaching:

"using a mixture of softwood and hardwood."

Serial No. 10/668,387
Page 8

PITKANNEN includes absolutely no teaching or suggestion of a process for modulating the morphology of cellulosic fibers by subjecting the fibers to a metal ion-activated peroxide treatment at a pH of from 1 to 9 and subjecting the treated fibers to a refining treatment or of cellulosic fibers such as having a modified morphology. This rejection is clearly inappropriate and should be withdrawn.

Respectfully submitted,

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